Remarks

Applicant thanks the Examiner for the careful examination of this application and the clear explanation of the rejection and the indication of allowable subject matter.

Claims 34 and 49 are amended, and are parsed as follow:

34. (amended)The process of claim 25 in which the performing includes:

storing operating signals in a data sample register, and

scanning the stored data out of the data sample register on a scan path

that is coupled to the data sample register, and

that extends to a scan data output on the integrated circuit.

49. (amended)The process of claim 41 in which the performing includes:

storing operating signals of functional circuits in a data sample register, and

scanning the stored data out of the data sample register on a scan path

that is coupled to the data sample register, and

that extends to a scan data output on the integrated circuit.

Applicant submits that claims 34 and 49 as amended with a colon and two commas clearly define the subject matter which the inventor claims as his invention.

Applicant apologizes for the mis-statement in the Preliminary Amendment concerning the language of claim 41.

Independent claim 41 defines a process of operating an integrated circuit.

The process scans a first signal into a serial scan path on the integrated circuit in response to a scan clock signal and a scan mode signal.

The process stores the first signal in a register on the integrated circuit. The first signal indicates a desired protocol.

The process detects an event signal.

In response to the event signal, the process performs an operation on the integrated circuit using the desired protocol.

In contrast, US 4,620,302 to Binoeder, et al., discloses a programmatic comparator testing system.

The dedicated manufacturing system may be a host computer such as a Burroughs B 6900 computer or a Burroughs B 5900 computer which has a bi-synchronous data communications line to the programmatic comparator testing system 900. Column 4, lines 35-39.

The programmatic comparator testing system, as embodied in the present disclosure, is directed to testing the various signal systems involved in a Burroughs B 5900 computer, whereby a standard reference B 5900 computer (unit A) has its signals compared against the analogous signals of a B 5900 computer which is to be checked out and tested (unit B). Column 4, lines 56-62.

Referring to FIG. 5 it is seen that connections are provided for data signals to be bused from a standard reference module 6A and also from an analogous module to be tested, 6B. Thus, specific signals from the reference module can be fed into the programmatic comparator testing system 900 so that each particular signal can be compared with an analogous signal which is taken from the module to be tested 6B. Thus, it is possible to take any sort of electronic digital module and together with a standard reference module of the same type, use these as input to the programmatic comparator test system 900 in

order to perform check and diagnostic tests on the digital electronic module. Column 4, lines 42-55.

The bisynchronous data communications line 12 of FIG. 6 uses a binary bisynchronous data communications protocol using cyclic redundancy checking on each transferred data block. The electrical interface for this cable uses Burroughs direct interface circuitry which allows the driver system 100 to be placed up to 3,000 feet away from the module-unit-under-test, device 6B. Column 6, lines 49-55.

The bus connection 45 in FIG. 6 shows the inputs from a standard reference digital module to the data comparator module 500. This can provide up to 334 signal lines which can be simultaneously compared as a reference to signal lines 56 from the module to be tested 6B. Column 7, lines 29-34.

The bus 56 from the device to be tested, 6B, connects also to the data comparator module 500. The bus 56 provides up to 334 individual signal lines to the comparator which can be compared to the analogous signal lines from the standard reference digital module 6A. Column 7, lines 35-39.

The Binoeder patent thus tests modules, or computers, by simultaneously comparing outputs on 334 signal lines of a standard reference digital module to the outputs on another 334 individual signal lines of a module to be tested.

Communication between the host computer 100 and the programmatic comparator testing system is through a bi-synchronous data communications line 12 using a binary bisynchronous data communications protocol using cyclic redundancy checking on each transferred data block.

The claimed invention requires that the process scan a first signal into a serial scan path on the integrated circuit in response to a scan clock signal and a scan mode signal. The Binoeder patent stands silent on any serial scan path, scan clock, or scan mode signal.

Without disclosing the scan path, scan clock, or scan mode signal, the disclosure in the Binoeder patent cannot teach or suggest the other process steps of: storing the

first signal in a register on the integrated circuit, the first signal indicating a desired protocol; detecting an event signal; and in response to the event signal, performing an operation on the integrated circuit using the desired protocol.

The Tanenbaum paper discloses that:

Hardware and software are logically equivalent

and that:

Any operation performed by software can also be built directly into the hardware and any instruction executed by the hardware can also be simulated in software. (Both page 11, lines 11-13.

The Tanenbaum paper also stands silent on any serial scan path, scan clock, or scan mode signal.

Without disclosing the scan path, scan clock, or scan mode signal, the disclosure in the Tanenbaum paper cannot teach or suggest the other process steps of: storing the first signal in a register on the integrated circuit, the first signal indicating a desired protocol; detecting an event signal; and in response to the event signal, performing an operation on the integrated circuit using the desired protocol.

Claim 41 stands allowable over the cited art.

The depending claims are also allowable.

Information Disclosure Statement B presents US patents and applications and a foreign patent.

The application is in allowable form and the claims distinguish over the cited references. Applicant

respectfully requests reconsideration or further examination of this application.

Respectfully Submitted,

Lawrence J. Bassuk
Reg. No. 29,043
Attorney for Applicant

Texas Instruments Incorporated
P. O. Box 655474, MS 3999
Dallas, Texas 75265
972-917-5458